

ABSTRACT

The invention relates to a method for the individual adaptation of excitation intensities in a multiband fluorescence microscope with several excitation bands that are different in their spectrums and with associated fluorescence bands. The intensities of the individual fluorescence bands in the microscope image are determined and compared with standard intensity values greater than or equal to zero. For every excitation band that is assigned to a fluorescence intensity deviating from the standard intensity values a selective filter (23; 28, 29, 31, 32) is introduced into the illumination optical path. The transmission degree of the illumination optical path is variably adjusted in such a manner that by attenuating the excitation band the associated fluorescence intensity is adjusted to its standard intensity value. A multiband fluorescence microscope for carrying out the method has a set of filter slides (20) close to the aperture diaphragm (5) which set consists of individually displaceable, closely spaced apart filter slides (21; 21a, 21b) with selective filters (23; 28, 29, 31, 32) with a continuously adjustable transmission degree for every excitation band and with at least one free opening (22). The invention also relates to various advantageous embodiments of the set of filter slides (20).